REMARKS

The application has been reviewed and revised in light of the Final Office Action mailed on September 30, 2005. Claims 1-57 are currently pending in the application, with Claims 1, 15, 21, 25, 35, 38, 41 and 48 being in independent form. By this amendment, Claim 48 has been amended. No new matter or issues have been introduced by this amendment. In view of the amendments above and the remarks to follow, reconsideration and allowance of this application are respectfully requested.

Rejection of Claims 25-47 under 35 U.S.C. § 102

Claims 25-47 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,979,761 to Wurz et al. (hereinafter "Wurz et al.").

Applicants' Claim 25 recites:

> "A method for reading at least one optical code within a field of view of a scanning system and oriented in an orientation included in a set of multiple orientations, said method comprising:
> operating the scanning system in a mode selected from at least two modes, including a first mode that is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations, and a second mode that is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a selectable reduced set of the set of multiple orientations, wherein the selectable reduced set of the set of multiple orientations includes less orientations than the set of multiple orientations; and
> decoding the at least one read optical code."(emphasis added)

Wurz et al. is directed to a bar code laser scanner for scanning coded symbologies having a rotating polygonal mirror, a plurality of adjustable mirror assemblies and a photo detector for detecting light reflected by the coded symbology. The adjustable mirror assemblies have different inclination angles from each other and are adjustably positioned to receive reflected light from the rotating polygonal mirror to produce an adjustable X scanning pattern for the detection of a bar code symbol.

Wurz et al. does not disclose or suggest operating the scanning system in a mode selected from at least two modes, including a first mode that is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations, and a second mode that is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a selectable reduced set of the set of multiple orientations, wherein the selectable reduced set of the set of multiple orientations includes less orientations than the set of multiple orientations, as recited in Applicants' Claim 25.

The X pattern generated by the scanner described by Wurz et al. is formed of intersecting scan lines, wherein the adjustable mirrors are adjustable for generating a modified X scanning pattern in which an angle between the two scan lines forming the X is adjusted. Applicants herein submit a comparison of the set of orientations of optical codes that are readable by a first and second X pattern generated by the scanner described by Wurz et al., where the second X pattern is modified relative to the first X pattern due to adjustment of the adjustable mirrors. In order to perform a valid comparison, the optical codes being considered have the same symbol height. For both of the first and second X patterns, each of the scan lines of the X pattern has a corresponding region which delineates the possible orientations of an optical code, where the optical code is oriented for the scan line to intersect a sufficient portion of the optical code for reading of the optical code to be possible. The size of the region is dependent upon the symbol height of the optical code. The summation of the regions corresponding to the two scan lines forming the X pattern represents the possible orientations of readable optical codes.

The motivation of Wurz et al. is to be able to read an optical code which may not be precisely aligned, and to maximize the freedom of orientation of the optical code for particular scanning situations (e.g., reading optical codes of a particular height or orientation style (e.g., "ladder" or "picket fence"), (see column 1, lines 46-67, column 2, lines 1-6, 14-19, 34-35, 55-67, column 3, lines 11-13). In order to maximize the freedom of orientation of readable optical codes, the summation of the regions corresponding to the two scan lines is maximized, e.g., not overlapped, as overlapping would be counterproductive in light of the motivation of Wurz et al. Furthermore, Wurz et al. does not disclose or suggest overlapping of two regions corresponding to the two scan lines. Accordingly, the summation of the regions corresponding to the two scan lines is the same for the first X pattern and the second X pattern. Thus, the set of orientations of optical codes readable by the second X pattern may be different relative to the first X pattern, but is not reduced relative to the first X pattern.

While FIG. 5 shows two scan lines forming the X pattern and FIGS. 12, 13 and 14 show three scan lines forming the X pattern, a first embodiment with a first configuration of adjustable mirrors is provided for producing the X pattern shown in FIG. 5, a second embodiment with a second configuration of adjustable mirrors is provided for producing the X pattern shown in FIG. 12, and a third embodiment with a third configuration of adjustable mirrors is provided for producing the X pattern shown in FIGS. 13 and 14. The scanner described by Wurz et al. cannot be operated in different modes for generating the X pattern shown in FIG. 5 and then the X pattern shown in FIGS. 12, 13 or 14. Please see the discussion below with respect to Claim 41.

Claim 35 recites:

> "A method for reading at least one optical code within a field of view of a scanning system and oriented in an orientation included in a set of multiple orientations, said method comprising the steps of:
>
> imaging the at least one optical code including sensing light reflected from at least a portion of the at least one optical code with at least a two-dimensional array of optical detectors;
>
> generating sensing signals corresponding to the sensed light reflected from the imaged at least one optical code; and
>
> operating the system in a mode selected from at least two modes including a first mode that is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations, and a second mode that is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a predetermined reduced set of the set of multiple orientations, wherein the predetermined reduced set of the set of multiple orientations includes less orientations than the set of multiple orientations." (emphasis added)

Claim 35 includes similar limitations as Claim 25. Therefore, for at least the same reasons given above for independent Claim 25, it is respectfully submitted that independent Claim 35 is also believed to be patentable over Wurz et al. Additionally, Wurz et al. does not disclose or suggest imaging of the at least one optical code, including sensing light reflected from at least a portion of the at least one optical code with at least a two-dimensional array of optical detectors.

Claim 38 recites:

> "A method for reading at least one optical code within a field of view of a scanning system and oriented in an orientation included in a set of multiple orientations, said method comprising:
>
> generating at least one user request signal in response to at least one user action performed on a one, single position actuator;
>
> operating the system in a mode selected from at least two modes including a first mode that is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations, and a second mode that is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a predetermined reduced set of the set of multiple orientations, wherein the predetermined reduced

> set of the set of multiple orientations includes less orientations than the set of multiple orientation;
>
> decoding sensing signals generated by a sensor sensing the at least one optical code;
>
> generating at least one decode signal corresponding to the decoding;
>
> transmitting the at least one decode signal for further processing thereof; and
>
> enabling at least one of the decoding, generating and transmitting of the at least one decode signal in accordance with the at least one user request signal." (emphasis added)

Claim 38 includes similar limitations as Claim 25. Therefore, for at least the same reasons given above for independent Claim 25, it is respectfully submitted that independent Claim 38 is also believed to be patentable over Wurz et al. Additionally, Wurz et al. does not disclose or suggest generating a user request signal in response to a user action performed on one single position actuator, operating the system in a mode of at least two modes including a first mode for reading the at least one optical code in any orientation of the set of multiple orientations and a second mode for reading the at least one optical code oriented in an orientation of a predetermined reduced set of the set of multiple orientations, and enabling at least one of decoding, generating and transmitting of the at least one decode signal in accordance with the user request signal, as recited in Applicants' Claim 38.

First, Wurz et al., does not disclose or suggest control of enablement of decoding, generating or transmitting of the at least one decode signal. On the other hand, Wurz et al. describes detecting a reflected beam, converting the received detected light into an electrical signal, converting the signal into a digital signal, and forwarding the converted signal to a decoding means for decoding thereof (see column 4, lines 28-42). Second, Wurz et al. does not disclose or suggest one single position actuator for controlling enablement of decoding, generating or transmitting of the at least one decode signal.

Claim 41 recites:

> "A method for reading at least one optical code comprising:
> operating a scanning system in a first mode selected from at least a first and second mode comprising generating a first set of scan lines for scanning a target optical code, wherein each scan line has a different orientation;
> operating the scanning system in the second mode comprising generating a second set of scan lines for scanning the target optical code, wherein the second set of scan lines includes less scan lines than the first set of scan lines; and
> decoding the at least one scanned optical code" (emphasis added).

Wurz et al. does not disclose or suggest operating a scanning system in a first mode comprising generating a first set of scan lines for scanning a target optical code, wherein each scan line has a different orientation; and operating the scanning system in a second mode comprising generating a second set of scan lines for scanning the target optical code, wherein the second set of scan lines includes less scan lines than the first set of scan lines. Wurz et al. describes a first embodiment of the scanner having adjustable mirrors 21, 22, 23 and 24 (see FIG. 1) and which generates a scanning pattern including two lines 104 and 106 that intersect, forming an X pattern (see FIG. 5). Light reflected from mirror 22 corresponds to line 104 of the scanning pattern, and light reflected from mirror 23 corresponds to line 106 of the scanning pattern.

Wurz et al. further describes a second embodiment of the scanner having a different configuration of adjustable mirrors 261, 262, 263, 264 and 265 (see FIG. 11) which generates a scanning pattern including three lines 268, 269 and 270, where lines 268 and 269 form an X pattern, and line 270 is a horizontal line (see FIG. 12). Wurz et al. describes a third embodiment of the scanner having still another configuration of adjustable mirror assemblies 321, 322 and 323 (see FIG. 13) which generates a scanning pattern including three lines 344, 346 and 342, where lines 344 and 346 form an X pattern, and line 342 is a straight vertical center line that intersects legs 344 and 346 (see FIG. 14 and column 6, lines 35-45).

With respect to the Examiner's comments in item 6 of the Final Office Action of September 30, 2005, Applicants respectfully submit that the scanner described by Wurz et al. cannot be adjusted for creating 3 scan lines or 2 scan lines, corresponding to first and second modes, respectively. Different embodiments of the scanner having different mirror configurations are used for creating 3 scan lines and 2 scan lines, respectively. The different mirror configurations are not used for operating the scanner in different modes.

Accordingly, withdrawal of the rejection under 35 U.S.C. Section 102(b) with respect to Claim 25, 35, 38 and 41 and allowance thereof are respectfully requested. Dependent Claims 26-34, 36-37, 39-40 and 42-47 depend directly or indirectly from independent Claim 25, 35, 38 and 41, respectively, and therefore include the limitations of Claim 25, 35, 38 and 41. Accordingly, for at least the same reasons given for Claim 25, 35, 38 and 41, Claims 26-34, 36-37, 39-40 and 42-47 are believed to contain patentable subject matter, and are therefore patentable for at least the reasons given above for independent Claims 25, 35, 38 and 41.

In addition, Claim 27 recites, "the step of selectively enabling a decoder for decoding the sensing signals in accordance with a user request." As described in Applicants' specification, page 14, lines 1-2, selective disablement of the decoder allows a "user to aim the scanning device 12 without decoding (including transmission for further processing) any regions scanned." Claim 43 includes similar limitations as Claim 27. Wurz et al. does not disclose or suggest selective enablement of a decoder as recited by Applicants' Claims 27 and 43.

Claim 28 recites "illuminating at least a portion of the at least one optical code with at least one light source; generating at least first and second scan line patterns using at least one light beam generated by the at least one light source, wherein the first scan line pattern is generated when operating in the first mode, and the second line pattern is generated when operating in the second mode, wherein the first scan line pattern includes a plurality of scan lines and the second scan line pattern includes at least one selected scan line from the plurality of scan lines." Wurz et al. does not disclose or suggest generating at least first and second scan line patterns using at least one light beam generated by the at least one light source, wherein the first and second scan line patterns are generated when operating in the first and second modes, respectively, as recited by Applicants' Clam 28.

Furthermore, Claim 29 recites, "sensing light reflected from at least a portion of the at least one optical code; generating sensing signals corresponding to sensing of the at least one optical code; determining an orientation relative to a predetermined axis of respective sensed optical codes of the at least one optical code; selecting sensing signals that correspond to respective sensed optical codes of the at least one optical code having a determined orientation within a selectable range when operating in the second mode; and decoding the selected sensing signals." Claims 36 and 37 include similar limitations as Claim 29. Wurz et al. does not disclose or suggest determining an orientation relative to a predetermined axis of respective sensed optical codes of the at least one optical code; selecting sensing signals that correspond to respective sensed optical codes of the at least one optical code having a determined orientation within a selectable range when operating in the second mode; and decoding the selected sensing signals, as recited by Applicants' Claims 29, 36 and 37.

Claim 30 recites "controlling operation of the at least one light source for selectively enabling the at least one light source to generate a selected scan pattern of the first and second scan patterns." Wurz et al. does not disclose or suggest controlling operation of the at least one light source for selectively enabling the at least one light source to generate a selected scan pattern of the first and second scan patterns, as recited by Applicants' Claim 30.

Claim 31 recites, "selectively operating the scanning system in a third mode for adjusting at least one adjustable parameter of the scanning system in response to a received user request". Claim 32 recites "wherein the at least one adjustable parameter includes at least one range of angles defining the reduced set of the set of multiple orientations." Claims 46 and 47 include similar limitations as Claims 31 and 32. Wurz et al. does not disclose or suggest a third mode for adjusting parameters, or where an adjustable parameter is at least one range of angles defining the reduced set of the set of multiple orientations, as recited by Applicants' Claims 31, 32, 46 and 47.

Claim 34 recites, "wherein the second scan line pattern includes one set of two or more parallel scan lines." Wurz et al. does not disclose or suggest a scan line pattern including a set of two or more parallel scan lines, as recited by Applicants' Claim 34. On the contrary, each of the scan lines in the scan line patterns described by Wurz et al. intersects with at least one other scan line.

Accordingly, for at least the reasons stated above, reconsideration and withdrawal of the rejection of dependent Claims 26-34, 36-37, 39-40 and 42-47 is respectfully requested and allowance of the dependent claims is earnestly solicited.

Rejection of Claims 1-14 and 21-24 and 48-57 under 35 U.S.C. § 103

Independent Claims 1, 21 and 48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wurz et al. in view of U.S. Patent No. 6,715,685 to Dvorkis (hereinafter "Dvorkis").

Claim 1 recites:

> "An omnidirectional scanning system for reading at least one optical code within a field of view of the scanning system and oriented in an orientation included in a set of multiple orientations, said scanning system comprising:
> at least one processor comprising:
> means for operating the scanning system in at least two modes, said means for operating comprising:
> means for operating the scanning system in a first mode of said at least two modes, wherein said first mode is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations; and
> means for operating the scanning system in a second mode of said at least two modes, wherein said second mode is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a selectable reduced set of the set of multiple orientations, wherein the selectable reduced set of the set of multiple orientations includes less orientations than the set of multiple orientations." (emphasis added)

Amended Claim 1 includes similar limitations as Claim 25. Therefore, for at least the same reasons given above for independent Claim 25, it is respectfully submitted that independent Claim 1 is also believed to be patentable over Wurz et al.

It is respectfully submitted that Dvorkis does not cure the deficiencies of Wurz et al. Dvorkis is directed to a scanning arrangement in a scanner incorporating a scan element which is capable of the repetitive high-speed scanning of indicia having parts of different light reflectivity; for example, such as barcode symbols, and more particularly, pertains to the operation of a scanning arrangement of the type which, at high scanning speeds, will enable the scanning of indicia in variable and specified omni-directional scanning patterns. The variable omni-directional scanning pattern is attained through control over the electrical energy input to a read-start device for activating the scan element of the scanner for vibratory motion between first and second pairs of scan end position, in which the energy input is controlled and varied, and the scan element is rotated, in a manner so as to enable the scan element to implement the aforementioned omni-directional scanning patterns over the indicia.

Dvorkis does not disclose or suggest at least one processor comprising means for operating the scanning system in at least two modes, said means for operating comprising means for operating the scanning system in a first mode of said at least two modes, wherein said first mode is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations; and means for operating the scanning system in a second mode of said at least two modes, wherein said second mode is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a selectable reduced set of the set of multiple orientations, wherein the selectable reduced set of the set of multiple orientations includes less orientations than the set of multiple orientations, as recited in Applicants' Claim 1.

Claim 21 recites:

> "An omnidirectional scanning system including a scanning device for reading at least one optical code within a field of view of the scanning system and oriented in an orientation included in a set of multiple orientations, said scanning system comprising:
>
> one single position actuator responsive to at least one user action for generating at least one user request signal;
>
> at least one processor comprising:
>
> means for operating the scanning system in at least two modes, said means for operating comprising:
>
> means for operating the scanning system in a first mode of said at least two modes, wherein said first mode is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations; and

> means for operating the scanning system in a second mode of said at least two modes, wherein said second mode is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a predetermined reduced set of the set of multiple orientations, wherein the predetermined reduced set of the set of multiple orientations includes less orientations than the set of multiple orientations;
>
> decoder means for decoding sensing signals generated by a sensor sensing the at least one optical code, generating at least one decode signal corresponding to the decoding, and transmitting the at least one decode signal for further processing thereof; and
>
> means for enabling the means for operating the scanning system in a first mode, the means for operating the scanning system in a second mode and the decoder means in accordance with the at least one user request signal" (emphasis added).

Claim 21 includes similar limitations as Claim 38. Therefore, for at least the same reasons given above for independent Claim 38, it is respectfully submitted that independent Claim 21 is also believed to be patentable over Wurz et al.

Additionally, Wurz et al. does not disclose or suggest a scanning system having one single position actuator responsive to at least one user action for generating at least one user request signal, and means for enabling a means for operating in a first mode, a means for operating in a second mode and a decoder means in accordance with the at least one user request signal, where the means for operating in the first mode is for reading at least one optical code oriented in any orientation of a set of multiple orientations, and the means for operating in the second mode is for reading the at least one optical code oriented in an orientation of a predetermined reduced set of the set of multiple orientations, as recited in Applicants' Claim 21. On the contrary, Wurz et al. describes adjusting mirrors by turning a screw or a pin for adjusting the X pattern generated by the scanning system. Both the screw and pin are not single position actuators. Furthermore, Wurz et al. does not describe a means for controlling enablement of decoding in accordance with at least one user request signal generated by a single position actuator.

It is respectfully submitted that Dvorkis does not cure the deficiencies of Wurz et al. Dvorkis does not disclose or suggest a scanning system having one single position actuator responsive to at least one user action for generating at least one user request signal, and means for enabling a means for operating in a first mode, a means for operating in a second mode and a decoder means in accordance with the at least one user request signal, where the means for operating in the first mode is for reading at least one optical code oriented in any orientation of a set of multiple orientations, and the means for operating in the second mode is for reading the at least one optical code oriented in an orientation of a predetermined reduced set of the set of multiple orientations, as recited in Applicants' Claim 21.

Claim 48 recites:

> "A scanning system comprising:
> at least one processor having means for operating the scanning system in a first and second mode;
> wherein the first mode includes generating a first set of scan lines for scanning a target optical code, wherein each scan line has a different orientation; and
> wherein the second mode includes generating a second set of scan lines for scanning the target optical code, wherein the second set of scan lines includes less scan lines than the first set of scan lines." (emphasis added)

Claim 48 includes similar limitations as Claim 41. Therefore, for at least the same reasons given above for independent Claim 41, it is respectfully submitted that independent Claim 48 is also believed to be patentable over Wurz et al. It is respectfully submitted that Dvorkis does not cure the deficiencies of Wurz et al. Dvorkis does not disclose or suggest at least one processor having means for operating the scanning system in a first and second mode, wherein the first mode includes generating a first set of scan lines for scanning a target optical code, wherein each scan line has a different orientation; and wherein the second mode includes generating a second set of scan lines for scanning the target optical code, wherein the second set of scan lines includes less scan lines than the first set of scan lines, as recited in Applicants' Claim 48.

Accordingly, Claims 1, 21 and 48 are believed in to patentable over Wurz et al. and Dvorkis, taken alone or in any proper combination, and withdrawal of the rejection under 35 U.S.C. Section 103(a) with respect to Claim 1, 21, and 48 and allowance thereof are respectfully requested. Dependent Claims 2-14, 22-24 and 49-57 depend directly or indirectly from independent Claims 1, 21 and 48, respectively, and are therefore patentable for at least the reasons given above for independent Claims 1, 21 and 48, respectively. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested and allowance of the dependent claims is earnestly solicited.

Additionally, Claims 5 and 52 include similar limitations as Claim 27, Claim 7 includes similar limitations as Claim 28, Claims 8 and 57 include similar limitations as Claim 29, Claim 10 includes similar limitations as Claim 30, and Claims 11, 22 and 54 include similar limitation as Claim 31. Accordingly, for at least the reasons given above for Claims 27-31, it is believed that Claims 5, 7, 8, 10, 11, 22, 54 and 57 are also believed to be patentable over Wurz et al. and Dvorkis, taken alone or in any proper combination.

Claim 9 recites "when operating in the second mode, the scanning system operates as a single line scanning system." Wurz et al. and Dvorkis, taken alone or in any proper combination, do not disclose or suggest operating in the second mode as a single line scanning system. Wurz et al. and Dvorkis each describe scanning using more than one scan line.

Claim 14 recites "wherein the at least one processor further comprises a means for processing a user input optical code read by the scanning system; wherein the user input optical code includes at least one input request selected from the group consisting of a mode selection request and a parameter request; and wherein the means for operating the scanning system operates in a selected mode of the at least two modes in accordance with the processing of the mode selection request, and the reduced set is configured in accordance with the processing of the parameter request." Wurz et al. and Dvorkis, taken alone or in any proper combination, do not disclose or suggest processing a user input optical code including at least one of a mode selection request for selecting the mode of operation and a parameter request for configuring the reduced set, as recited in Applicants' Claim 14.

Rejection of Claims 15-20 under 35 U.S.C. § 103

Claims 15-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wurz et al. in view of Dvorkis as discussed hereinabove and further in view of U.S. Patent No. 5,446,271 to Cherry et al. (hereinafter "Cherry et al.").

Claim 15 recites:

> "A two-dimensional imager scanning system for reading at least one optical code within a field of view of the scanning system and oriented in an orientation included in a set of multiple orientations, said scanning system comprising:
>
> a sensor module including at least a two-dimensional optical detector array for sensing light reflected from at least a portion of the at least one optical code and incident on the sensor module, and generating sensing signals corresponding to the sensing; and
>
> at least one processor comprising:
>
> means for operating the scanning system in at least two modes, said means for operating comprising:
>
> means for operating the scanning system in a first mode of said at least two modes, wherein said first mode is a non-restricted

> omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations;
>
> means for operating the scanning system in a second mode of said at least two modes, wherein said second mode is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a predetermined reduced set of the set of multiple orientations, wherein the predetermined reduced set of the set of multiple orientations includes less orientations than the set of multiple orientations; and
>
> means for processing the sensing signals." (emphasis added)

Claim 15 includes similar limitations as Claim 1. Therefore, for at least the same reasons given above for independent Claim 1, it is respectfully submitted that independent Claim 15 is also believed to be patentable over Wurz et al. and Dvorkis, taken alone or in any proper combination.

It is respectfully submitted that Cherry et al. does not cure the deficiencies of Wurz et al and Dvorkis. Cherry et al. is directed to a method and apparatus for reading encoded symbols at any orientation to a raster scanning device. A pattern of virtual scan lines is selected over the two-dimensional imaging region according to the specifications of the images to be read. The pattern is generated by defining a family of parallel lines of a certain spacing and rotating the family by a specified angle until the two-dimensional imaging region is covered. Only the data at selected raster locations on the virtual scan lines is stored and processed. One-dimensional signal processing methods are used to detect edges and decode the encoded symbols.

Cherry et al. does not teach or suggest a two-dimensional imager scanning system having at least one processor comprising means for operating the scanning system in a first mode of said at least two modes, wherein said first mode is a non-restricted omnidirectional scan mode for reading the at least one optical code oriented in any orientation of the set of multiple orientations; and means for operating the scanning system in a second mode of said at least two modes, wherein said second mode is a restricted omnidirectional scan mode for reading the at least one optical code oriented in an orientation of a predetermined reduced set of the set of multiple orientations, wherein the predetermined reduced set of the set of multiple orientations includes less orientations than the set of multiple orientations, as recited in Applicants' Claim 1.

Furthermore, Applicants' submit that the sensor module including a two-dimensional optical detector array of the imager scanner system recited in Applicants' Claim 15 is structurally and functionally different than the photo detector of the laser-based scanners of Wurz et al. and Dvorkis. Applicants believe that one skilled in the art would not be motivated to modify the teachings of Wurz et al. and Dvorkis to include the optical detector array of Cherry et al. More particularly, the means for processing the sensing signals as recited in Applicants' claims is configured for processing sensing signals generated by a two-dimensional optical detector array of an imager-based scanner and not by a photo detector of a laser-based scanner.

Accordingly, reconsideration and withdrawal of the rejection of Claim 15 under 35 U.S.C. § 103(a) is respectfully requested and allowance of independent Claim 15 is earnestly solicited.

Dependent Claims 16-20 depend directly or indirectly from independent Claim 15, and are therefore patentable for at least the reasons given above for independent Claim 15. Additionally, Claim 17 includes similar limitations as Claim 9, and Claim 18 includes similar limitations as Claim 31, Claim 19 includes similar limitations as Claim 14 and Claim 20 includes similar limitations as Claim 29. It is thus believed that for at least the reasons given above for Claims 9, 14, 29 and 31, that Claims 17-20 are also believed to be patentable over Wurz et al. in view of Dvorkis and further in view of Cherry et al. Accordingly, reconsideration and withdrawal of the rejection of Claims 16-20 under 35 U.S.C. § 103(a) is respectfully requested and allowance of dependent Claims 16-20 is earnestly solicited.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that none of the references of record, considered individually or in combination, in whole or in part, disclose or suggest the claimed subject matter. Therefore, all claims now pending in this application, namely, Claims 1-57, are now in condition for allowance. Accordingly, early and favorable consideration of this application is respectfully requested. Should the Examiner believe that a telephone or personal interview may facilitate resolution of any remaining matters, he is respectfully requested to contact Applicants' undersigned attorney at the telephone number indicated below.

Respectfully Submitted,

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